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[00132] **Figure 80** shows an example of a method to look up two vectors of data items in parallel for one vector of indices according to one embodiment of the present invention.

[00133] **Figure 81** shows an example of a method to look up two vectors of data items in parallel for two vectors of indices according to one embodiment of the present invention.

[00134] **Figure 82** shows an example of a method to look up two vectors of data items of extended precision in parallel for one vector of indices according to one embodiment of the present invention.

[00135] **Figure 83** shows another example of a method to look up two vectors of data items of extended precision in parallel for one vector of indices according to one embodiment of the present invention.

[00136] **Figure 84** shows a method to blend two images using a vector look up unit according to one embodiment of the present invention.

[00137] **Figure 85** shows a method to look up vectors of blending factors using a vector look up unit according to one embodiment of the present invention.

[00138] **Figure 86** shows a method to look up two vectors of data items in parallel for two vectors of indices using a vector look up unit according to one embodiment of the present invention.

[00139] **Figures 87<sup>88, and</sup> 89** show flow charts for methods to look up two vectors of data items in parallel for one or two vectors of indices.

[00140] **Figure 90** shows an example of a method to convert a vector of elements into another vector of elements using a vector look up unit according to one

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of the present invention.

[0094] **Figure 39** illustrates another block diagram representation of a circuit for configuring look-up units into different look-up tables according to one embodiment of the present invention.

[0095] **Figure 40** illustrates data representations for the execution of an instruction for performing table look-up of a vector of data elements according to one embodiment of the present invention.

[0096] **Figures 41<sup>42, and</sup> 43** illustrate block diagram representations of circuits for performing table look-up of vectors of different sizes using a set of look up units according to one embodiment of the present invention.

[0097] **Figure 44** shows a flow diagram for a method to perform table look-up of a vector of data elements according to one embodiment of the present invention.

[0098] **Figure 45** illustrates a block diagram representation of a circuit for the execution of a method to load entries in look-up units using DMA controllers according to one embodiment of the present invention.

[0099] **Figure 46** illustrates data representations for the execution of a method to load entries in look-up units using DMA controllers according to one embodiment of the present invention.

[00100] **Figure 47** shows a flow diagram for a method to load entries in look-up units using DMA controllers according to one embodiment of the present invention.

[00101] **Figure 48** illustrates a block diagram representation of a circuit for the execution of a method to set entries in look-up tables according to one embodiment of the present invention.

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